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ABSTRACT

The Center for Child Development facility on the University of South Florida campus in Tampa was opened in 1990. The facility includes three classrooms, a playground, and a room called "the Exploratorium." The exploratorium is 2,304 square feet in size and contains three built-in areas: a kitchenette, a water/science/arts center, and an amphitheater with seating. It is designed to meet two philosophical goals. The first goal is to use the Piagetian theory of how children learn; in other words, to take advantage of the child's natural inclination to explore an environment that is rich in resources. The second goal is to focus on all the arts. The exploratorium functions as: (1) a sociodramatic play area; (2) a construction center; (3) an area that provides an opportunity for sharing many materials; (4) an area where teachers can observe children closely; (5) an area where university students can receive training in working with children in a special setting; and (6) an area with aesthetic appeal. The organization of the center involves three homebase classrooms. Groups of children from each classroom rotate their use of the exploratorium, and this alleviates classroom overcrowding. A reference list of eight items and a floor plan of the center are included. (BC)

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THE EXPLORATORIUM

(An Everchanging Environment Bursting with Invitation for Children,

ages 3-5)

Ronald Linder

The new University of South Florida Center for Child Development facility received an architectural award in 1991. That innovative building was designed with children in mind and based on what we know about developmentally appropriate practices and how children learn. The planning committee established two overriding philosophical thrusts. The first was to utilize Piagetian theory of how children learn, i.e., to take advantage of the child's natural inclination to explore a physical environment rich in resources. The second was to focus on all of "the arts." The design of the structure was to facilitate these broad philosophical strands. Let's take a walk through the building.

We enter the building from a large port cochere and covered walkway into a two story high reception area. From the reception area, an open stairway leads to an observation deck which overlooks a large and attractive room, which we call the Exploratorium. A clerestory window system separates the high trussed roof structure from the four walls and provides an abundant source of natural light. Around the walls, several large windows framed in red, yellow or blue have been dispersed playfully at varying heights, some at children's eye level. The name, Exploratorium, was taken from the various hands-on children's museums that have sprung up around the country. That room is the heart of the educational program. But first, let's look quickly at the other parts of this special place for children.

Doors from the Exploratorium lead directly to three smaller 30 feet x 20 feet classrooms, of 600 square feet each. From the classrooms large windows look out to a covered patio 18 feet wide and 90 feet long. Fluorescent

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lights, skylights and ceiling fans keep the space light and cool. On this patio are picnic tables, carpentry benches, several types of water play apparatus and easels for more noisy and messy activities. Immediately off the patio is a playground with vegetable gardens, a winding tricycle path with bridges and tunnels, a developmental play center, playhouses, and a rebound wall surrounded by a small berm which can double as an outdoor theatre. The entire property is located in a beautifully wooded setting on the edge of the University of South Florida Campus in Tampa. Now, let's look more closely at the Exploratorium.

The Exploratorium

The room is 2304 square feet in size (48' x 48') and contains three permanently built-in learning areas. Those are: a small kitchenette for adults and children; a water/science/arts center with a recessed ceramic tiled floor and center drain; and a mini-amphitheatre with carpeted seating. An open space of at least 1200 square feet has been provided for flexibility to move furniture and change props, materials and activities as new learning centers and themes emerge. Those constantly changing areas in the open space will take the form of three main centers: (1) socio-dramatic play where children can be astronauts two weeks, dancers another week, or actors in a television studio at another time, (2) a large construction center where children can use blocks, giant tinker toys, a velcro wall, or choose from a large supply of construction materials, and (3) a science or physical knowledge area where children can experiment with pulleys or inclines, explore the forces of wind, or discover the effects of light, shadow and reflections. Several computers line one wall and are very popular with the children.

The props and open ended materials in the Exploratorium feature a variety of opportunities for children to work separately or with others to cook,

paint, build, explore, imagine, experiment, and invent. The purpose of this everchanging environment bursting with invitation is to address the committee's first philosophical focus from a Piagetian perspective of developing an attitude of experimentation, allowing children time for exploration, to build concentration and persistence, to understand that errors are a natural and desirable part of the process of gaining knowledge, and learn to make choices from desirable alternatives. These experiences, along with careful questioning and guidance by adults, will lead to stretched imaginations and creative thinking, strong intellectual/social growth, and the curiosity and desire to keep on learning.

A second broad goal of the committee was to focus on all of the arts, including music, literature, dance, drama, and the fine arts. To that end beautifully framed pictures, some by famous artists and others by the children are hung side by side around the Exploratorium giving the impression of an art gallery. Soft classical music can be heard filtering through the room. Exposing children to these sounds have the immediate purpose of soothing any hyperactivity. Hopefully, the familiarization of certain tunes will lead to a lifetime appreciation of good music. Creative movement and role playing will be a regular part of the socio-dramatic center.

Overall, the atmosphere in the Exploratorium conveys a combination of a busy laboratory and a performing arts center. It should be active, but not boisterous. Children have been trained in routines and the proper uses of the materials. The more noisy, active and messy activities are saved for the outdoors or covered patio, while the quieter activities, such as small group oriented lessons, use of listening centers or picture books and putting together puzzles or other manipulatives are reserved for the homebase classrooms.

Why the Exploratorium?

The planning committee wanted a unique solution for the accomplishment of our goals and the Exploratorium concept seemed to be a viable alternative. There were several practical reasons why we decided to proceed with this conceptualization in mind:

First, classroom teachers are busy. They do not have the time and energy required to prepare such an elaborate environment. But they are enthusiastic about challenging their children to explore and experiment if someone else prepares the environment for them. That someone else is the Exploratorium Specialist, a newly created position which will be discussed in the next section.

A second reason is that the Exploratorium can be the catalyst for schoolwide curriculum projects and themes. When all children and adults in a center focus on one special theme, interests are high and learning is fun. The Exploratorium will be the central place where props can be used by everyone.

A third practical reason is the opportunity to share many materials. For example, most centers purchase several sets of building blocks to be distributed among the classrooms. In this plan, one large set of blocks enhanced with many associated items can be used to provide a superior construction area, therefore giving children far more choices and ideas for creating than they could have if they only worked in a self-contained classroom. Another obvious sharing space is the theatre or audio visual corner. One large television, along with the VCR, TV camera, slide, filmstrip and movie projector can be used in one area and need not be moved around the school nor duplicated in each classroom.

Fourth, teachers who observe their children closely may identify special interests and capabilities which would not be apparent in the normal day to day setting of the typical classroom. Follow up experiences calculated to extend those interests, can be devised to encourage children to become deeply involved in long term intellectual pursuits which can be gratifying experiences for both children and teachers.

A fifth purpose for this room is related to the unique function of the university. The University of South florida trains students in many disciplines to work with children. Additionally, there is a growing graduate and staff need for research studies. The Exploratorium gives these persons an opportunity to observe, work with, and study children in this special setting.

Finally, this space will add an aesthetic appeal because of its size, structure and decor. Facilities for children need not be located in stark back rooms of warehouses or decayed storefronts. They could be as beautiful as office buildings.

The Exploratorium Specialist

To insure the proper educational functioning of this space, a new position, the Exploratorium Specialist, has been created. The Exploratorium Specialist's job is to plan, prepare, schedule and coordinate all the activities of this room, train the children in the proper use of the materials, and communicate the philosophy and goals of the program to other adults. That special person serves as the assistant director for curriculum and is the primary force in activating the center's educational philosophy. She conducts workshops for teachers and parents and coordinates the entire school program, including schoolwide themes. She must be a good leader and communicator, be highly innovative and have an understanding of the types of materials that interest and challenge young children, a willingness and energy

to find or create these materials, place them appropriately to encourage positive interaction and problem solving among the children, and continue to devise and change materials and activities as needed. The Exploratorium Specialist does not have a full-time class of children, but works with all the children in the school as they spend part of each day in this big room.

How is the Center Organized?

Ideally, the Exploratorium Specialist position with 2 assistants would add three additional members to the existing staff. But, most centers, including ours, would not have adequate budget to add those additional persons, if no children are assigned to them. Therefore, with some reluctance, juggling is in order.

The twenty-one children who would normally be assigned to a fourth classroom will be distributed evenly among the other three. This arrangement will put a maximum of twenty-seven children at any time in each of the smaller homebase classrooms. The problems of overcrowding are alleviated, however, since those large groups are together only for short times during the day. After opening exercises, the three homebase classes are each separated into groups. One group from each classroom will go into the Exploratorium. The others will stay in the home base classrooms for varied experiences of language arts, mathematics, music and small manipulatives. A third group of children from each classroom could move to the adjoining covered patio for the noisier and messier activities of carpentry, waterplay and art. Since our playground is large and has so many varied activities, we have found that a higher quality of play occurs when a majority of our children are on the playground together. Children rotate, using all of the areas each day. A homebase staff member moves with the children from area to area. The

Exploratorium teachers remain there to prepare the environment and serve several groups one after another.

Portability

At first glance, it may appear that this unique architectural solution would not be portable to other schools or situations. This is not necessarily so. Many centers have multipurpose rooms that are not being used to their fullest potential. Using the ideas from the Exploratorium, innovative centers can produce their own versions and expansions of the idea. Although it's wonderful to have new centers built for specific academic purposes, with imagination, good ideas can be incorporated into most structures.

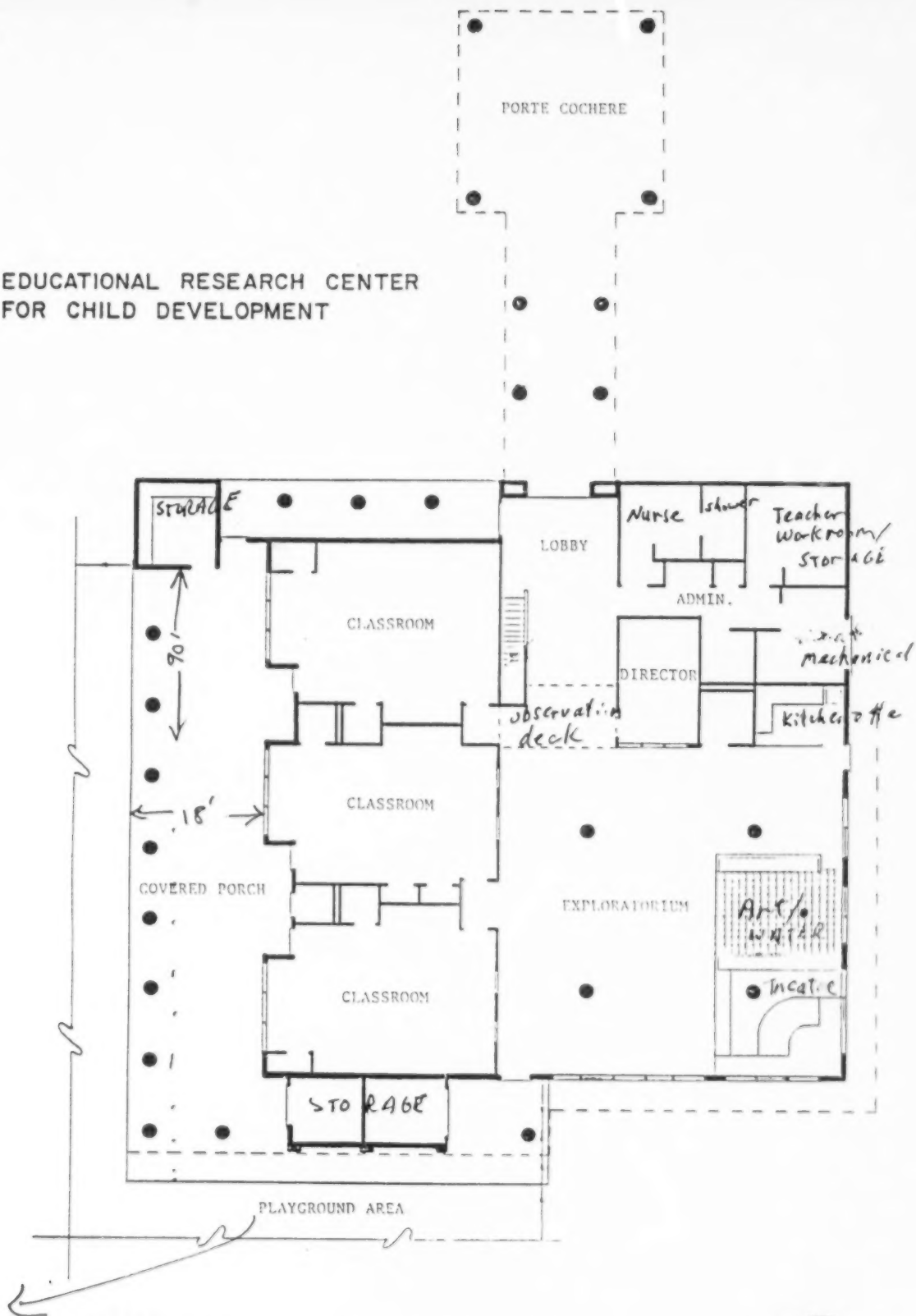
Conclusion and Summary

The Exploratorium concept is a unique architectural and programmatic application of a Piagetian based theoretical position of how children develop intellectually. It is the central room of the new award winning Educational Research Center for Child Development which opened on the University of South Florida campus, Tampa, in 1990.

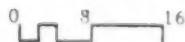
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